

FY 2005

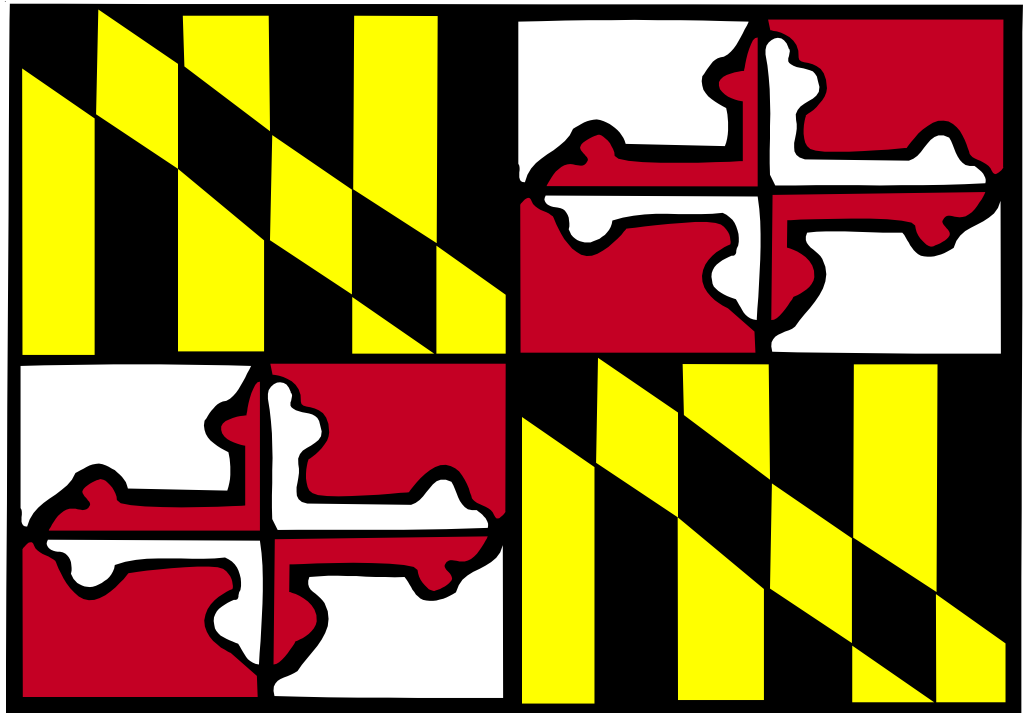
Fort George G. Meade and Phoenix Military Reservation

Installation Action Plan

As of September 2005



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**Fort George G. Meade
and
Phoenix Military Reservation
Installation Action Plan**

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Statement of Purpose

The purpose of the Installation Action Plan (IAP) is to outline the total multi-year Installation Restoration Program for an installation. The plan will identify environmental cleanup requirements at each site or area of concern, and propose a comprehensive, installation-wide approach with associated costs and schedules to conduct investigations and necessary remedial actions.

The IRP is specifically focused at contamination resulting from past activities and is funded by the centrally-managed Environmental Restoration, Army (ER,A) budget account. Cleanup activities directed at contamination primarily resulting from current operations are separately funded and managed and, although mentioned where relevant, will not generally be discussed in detail in the IAP.

In an effort to coordinate planning information between the IRP manager, AEC, installations, executing agencies, regulatory agencies, and the public, an IAP has been completed for Fort Meade (FGGM) and Phoenix Military Reservation (PMR). The IAP is used to track requirements, schedules and budgets for all major Army installation restoration programs.

All site specific funding and schedule information has been prepared according to projected overall Army funding levels and is, therefore, subject to change. Under current project funding, all remedies will be in place at FGGM by the end of 2012.

The following agencies contributed to the formulation and completion of this Installation Action Plan:

Engineering and Environment, Inc.

Fort George G. Meade

MDE

U.S. Army Corps of Engineers

U.S. Army Environmental Center

U.S. EPA, Region III

Acronyms & Abbreviations

AEDB-R	Army Environmental Database - Restoration (formerly DSERTS)
AST	Aboveground Storage Tank
ATSDR	Agency for Toxic Substances and Disease Registry
CAP	Corrective Action Plan
CERCLA	Comprehensive Environmental Response Compensation and Liability Act (1980)
COC	Contaminants of Concern
CRP	Community Relations Plan
CTC	Cost to Complete
cy	cubic yards
DA	Department of Army
DERP	Defense Environmental Restoration Program (now ER,A)
DD	Decision Document
DSERTS	Defense Site Environmental Restoration Tracking System (now AEDB-R)
EPA	(United States) Environmental Protection Agency
ER,A	Environmental Restoration, Army (formerly DERA)
FFA	Federal Facility Agreement
FFSRA	Federal Facility Site Remediation Agreement
FS	Feasibility Study
ft	foot
ft²	square feet
FY	Fiscal Year
gal	gallon
gpd	gallons per day
GW	Groundwater
HRS	Hazard Ranking System
IAP	Installation Action Plan
IRA	Interim Remedial Action
IROD	Interim Record of Decision
IRP	Installation Restoration Program
IWTP	Industrial Wastewater Treatment Plant
K	\$1,000
kg	kilograms
LTM	Long-term Monitoring
LTO	Long-term Operation
MCL	Maximum Contaminant Level
MDE	Maryland Department of the Environment
mg	milligrams
MW	Monitoring Well
NE	Not Evaluated
NFA	No Further Action
NPDES	National Pollutant Discharge Elimination System
NOV	Notice of Violation
NPL	National Priorities List
OB/OD	Open Burning/Open Detonation
OU	Operable Unit
O&M	Operation & Maintenance
PAH	Poly Aromatic Hydrocarbons
PA	Preliminary Assessment
PMR	Phoenix Military Reservation
POL	Petroleum, Oil & Lubricants

Acronyms & Abbreviations

POM	Program Objective Memorandum (budget)
PP	Proposed Plan
PY	prior year
RA	Remedial Action
RA(O)	Remedial Action - Operation
RAB	Restoration Advisory Board
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
REM	Removal
RFA	RCRA Facility Assessment
RI	Remedial Investigation
RIP	Remedy in Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
SARA	Superfund Amendments and Reauthorization Act
SI	Site Inspection
SVOC	Semi-Volatile Organic Compounds
SWMU	Solid Waste Management Unit
TAPP	Technical Assistance for Public Participation
ug/l	microgram per liter
USACE	United States Army Corps of Engineers
USACHPPM	United States Army Center for Health Promotion and Preventive Medicine (formerly called USAEHA)
USAEC	United States Army Environmental Center (formerly USATHMA)
USAEHA	United States Army Environmental Hygiene Agency (now USACHPPM)
USATHMA	United States Army Toxic and Hazardous Material Agency (now USAEC)
UST	Underground Storage Tank
VOC	Volatile Organic Compounds
yr	year

STATUS:	The USEPA has listed Fort Meade on the National Priorities list based on the hazard ranking scores of the Defense Reutilization and Marketing Office (DRMO) Drum Site (FGGM 07), landfill (FGGM 17), Post Laundry Facility (FGGM 47) and the Clean Fill Dump (FGGM 81-BRAC). RCRA oversight has been deferred; all future action will be taken pursuant to CERCLA and the NCP at Installation Restoration Sites.		
TOTAL # OF AEDB-R SITES:	FGGM: 31 Sites 15 Active 16 Response Complete	PMR: 4 Sites 1 Active 3 Response Complete	
DIFFERENT SITE TYPES:	11 Contaminated Buildings (2 PMR) 2 Contaminated Groundwater 1 Disposal Pit/Dry Well 3 Landfills 5 Storage Areas 1 Waste Treatment Plant 1 Soil Contamination After Tank Removal 1 Waste Line (PMR)	1 Contaminated Fill 1 Surface Disposal Area 1 Incinerator 2 Maintenance Yards 3 Spill Site Areas 1 Other (FGGM 78) 1 UST (PMR)	
CONTAMINANTS OF CONCERN:	POLs, Chlorinated solvents, PCBs, Heavy metals, Non-chlorinated solvents, PAHs		
MEDIA OF CONCERN:	Groundwater, Surface Water, Soil		
COMPLETED REM/IRA/RA:	<ul style="list-style-type: none"> - RA - Troop Boiler Plant (FGGM 05) pump & treat system recovering POL, FY92-96, FY97, FY98 - REM - DRMO Drum Site (FGGM 07) drum and transformer removal, FY95, VENC. - RA - DRMO Drum Site (FGGM 07), FY96, FY97, FY98 - RA - Landfill Cell #1 (FGGM 17) construct leachate collection system, FY93, VENC. Cap installation, gas vent system, fill, FY94-95, FY96, FY97, FY98 - REM - Battery Shop (FGGM 33) contaminated soil & tank removed, FY92, VENC - REM - USTs (FGGM 75) 309 USTs & contaminated soil removed, FY91-95 VENC, FY95, AFH 		
CURRENT IRP PHASES:	RI/FS: 12 sites RA(O): 1 site		
PROJECTED IRP PHASES:	RI/FS: 13 sites RD: 6 sites RA(C): 6 sites RA(O): 7 sites LTM: 3 sites IRA: 1 site		
IDENTIFIED POSSIBLE REM/IRA/RA:	RA at FGGM 07, 47, 83, 86, 87, 90, and PMR-001		
DURATION:	Year of IRP Inception	1991	
	Year (RA) all Sites are either RC or RIP	2008	
	Year (IRP) All LTM and RA(O) are complete	2015+	

Installation Information

LOCALE: Fort Meade is located on approximately 5,142 acres of land in Anne Arundel County, Maryland, midway between Baltimore, MD and Washington, DC. The facility is located southeast of the Baltimore-Washington Parkway, north of Maryland Route 32, and west of Maryland Route 175, approximately 28 miles from Fort McNair, DC.

IRP EXECUTING AGENCIES: **Investigation Phase Executing Agency:** USAEC and Fort Meade.
Remedial Design and Action Executing Agency: Fort Meade and U.S. Army Corps of Engineers, Baltimore District.

REGULATORY PARTICIPATION: **Federal:** Environmental Protection Agency, Region III
State: Maryland Department of the Environment.

REGULATORY STATUS:

- NPL, potential off-post contamination.
- Restoration Advisory Board established Mar 95.
- 90 Day storage facility.
- Notice of Violations for Site FGGM 05, Troop Boiler Area, issued Jun 91.
- Interagency Agreement, (pending)•

MAJOR CHANGES TO IAP FROM PREVIOUS YEAR: In response to the U.S. Army's revised Environmental Cleanup Strategy, Fort Meade is reorganizing and reprioritizing its Installation Restoration Program. An aggressive response complete date has been set for FY07. The Installation is responding with a new holistic approach to characterize all potentially impacted areas and implement remedies in accordance with the new Army guidance.

Installation Description

Fort Meade originally was authorized by Congress in 1917 as one of sixteen training cantonments to be built for troops drafted during World War I. It became a permanent military reservation in 1928. During the First World War, more than 100,000 troops were trained at the installation. Subsequently, World War II brought 3.5 million men and women to Fort Meade for training in different phases from 1940 to 1946. At various times since 1946, Fort Meade has been involved in the mission of training troops.

Fort George G. Meade (FGGM) is a permanent U.S. Army installation situated in the northwest corner of Anne Arundel County, Maryland. Anne Arundel County is located in central Maryland on the western shore of the Chesapeake Bay estuary. Nearby communities include Odenton, Severn, Jessup, and Laurel. FGGM is close to the border of Howard County on the west and Prince Georges County on the south. FGGM is located almost equidistant (12 miles) between Baltimore, MD and Washington, DC. FGGM is located in a region of significant population. The resident and working populations of FGGM approach 50,000.

Subsequent to the Resource Conservation and Recovery Act (RCRA) Hazardous and Solid Waste Amendments of 1984, Fort Meade applied for a Part B Permit. In accordance with RCRA provisions, Fort Meade began investigating its potential solid waste management units (SWMU) in 1987. At the same time, a site investigation began at the active sanitary landfill to determine what, if any, impacts the landfill had on local groundwater.

In 1988, Public Law 100-526, Base Closure and Realignment Act, identified Fort Meade for realignment to an administrative installation and to excess approximately 9,000 acres used for training. Since that time, Fort Meade has successfully and actively participated in developing the Restoration Advisory Board (RAB) in an effort to keep the surrounding community abreast of restoration activities.

As a result of BRAC, CERCLA, and RCRA statutes, Fort Meade has remedial actions on-going in the BCA, OMA, and DERA-OMA accounts. The AEDB-R sites identified include funding from these three sources.

The installation was placed on the Federal Agency Hazardous Waste Compliance Docket in 1989, after issuance of the Part B Permit.

At the end of FY01, approximately 30 SWMUs remained to be reviewed by the Installation/EPA/State regulator Tier I Partnering team. As of FY03, these 30 SWMUs have been geographically consolidated, and assigned AEDB-R designations. Currently, 15 AEDB-R sites are currently under investigation. Completion of Remedial Investigations at all 15 sites is anticipated by the end of FY05.

Fort Meade is also responsible for the Phoenix Military Reservation (PMR). The PMR is a former Nike Fire Control Area (FCA), which historically operated from 1955-1972. The Maryland National Guard used the PMR for training from 1972 to the 1980s. Historical operations have resulted in environmental impacts at the PMR. Groundwater contamination is present on- and off-site. A Remedial Investigation is scheduled for FY04. Remedial action at the PMR is anticipated.

Contamination Assessment

In 1980, USATHAMA (now U.S. Army Environmental Center) completed its initial installation assessment for Fort Meade. This assessment identified the need for a site investigation for the active sanitary landfill. No further action was taken until 1987 when USATHAMA updated the 1980 assessment to verify conditions at Fort Meade and determine the next steps to be taken. In 1988, USATHAMA began a preliminary assessment of the active sanitary landfill. In FY94, DERA funds were obtained to complete the cap on cell #1 of the landfill and OMA funds for the liner of active cell #2. All restoration work to date, besides the landfill, was done with OMA funds. Contaminants found in the landfill area include heavy metals, chlorinated solvents, and non-chlorinated solvents.

As of 28 July 1998, Fort Meade was added to the National Priorities List (NPL). This listing was based on a 1 April 1997 proposal by the United States Environmental Protection Agency (USEPA).

The PMR is contaminated with low levels of chlorinated solvents in groundwater. Response action is anticipated at this parcel.

PREVIOUS STUDIES

Title	AUTHOR	DATE
Draft Work Plan for Ordnance Survey of 7600 acre Department of Interior Parcel.		Undated
Concept Design of the Cover, Leachate & Gas Collection Systems for FGGM.		Undated
Environmental Impact Statement - Existing Activities and Conditions.		8-Jun-77
Landfill Study.		18-26 Jun 79
Final - Installation Assessment of FGGM.		3-7 Nov 80
Final - Overall Environmental Impact Statement.		Aug-81
Final - Update of the Initial Installation Assessment of FGGM and Gaithersburg Research Facility.		Dec-87
Final - Site Safety & Health Plan for Remedial Investigation at FGGM Landfill and Preliminary Assessment/Site Investigation at the Former Gaithersburg Nike Control and Launch Areas.		Mar-89
Draft - Task Order 2 Preliminary Assessment for Fort Holabird.		Dec-89
USATHAMA Task Order 2 Enhanced Preliminary Assessment Fort Holabird Crime Records Center.		Jan-90
Preliminary Draft - Environmental Assessment - Base Closure at Gaithersburg, MD.		15-Feb-90
Site Safety and Health Plan for Remedial Investigation/Feasibility Studies at FGGM Landfill and Preliminary Assessment/Site Investigation at Former Gaithersburg Nike Control and Launch areas.		Mar-90
Draft - USATHAMA - Appendices for FGGM Active Sanitary Landfill and Clean Fill Dump Remedial Investigation Report.		Apr-90
Final - Gaithersburg Research Facility Control Area Site Investigation - Accident Prevention Safety Plan.		May-90
USATHAMA - Appendices for FGGM Active Sanitary Landfill and Clean Fill Dump Remedial Investigation Report.		Aug-90
Final - Public Involvement and Response Plan.		Sep-90
Preliminary Assessment Report FGGM - Hazardous Substances Identification and Storage and Potential Receptors for Ground-water, Surface Water and Onsite Pathways.		1-Nov-90
Draft Final Document - USATHAMA Technical Report for Proposed Ordnance Clearance at FGGM.		Dec-90
Draft Final - Gaithersburg Appendices Final Project Report.		Dec-90
Final - Remedial Investigations/Feasibility Studies for Proposed Ordnance Clearing at FGGM.		Mar-91

PREVIOUS STUDIES

Title	AUTHOR	DATE
Draft Final Document - USATHAMA Ordnance Clearance Survey.		Mar-91
Final - Gaithersburg Research Facility Central Area Site Inspection.		Mar-91
Draft - Comprehensive Base Realignment and Partial Closure for FGGM & Fort Holabird.		Mar-91
Final - Gaithersburg Project Report Appendices.		Mar-91
Volatile Analysis - Fort Meade Laundry Analytical Data Package.		8-13 Aug 91
Environmental Investigation for Property Transfer - Fort Holabird Crime Records Center Environmental Investigation and Alternatives Assessment.		Sep-91
Draft - Addendum Site Health and Safety Plan Ordnance Clearance Survey.		1-Nov-91
Review of Draft Work Plan for Ordnance Survey of 1,400 Acres - Department of Interior Parcel.		4-Dec-91
Post Laundry Facility Contaminant Assessment Report.		6-Dec-91
Final - Preliminary Assessment Report Addendum for FGGM.		Mar-92
Final Environmental Investigation Report for Fort Holabird Crime Records Center.		31-Mar-92
Work Plan for Unexploded Ordnance Clearance Survey at FGGM.		Apr-92
Accident Prevention and Safety Plan - FGGM Ordnance Clearance Survey.		Apr-92
Site Health and Safety Plan - FGGM Ordnance Clearance Survey.		5-Jun-92
Work Plan - FGGM Ordnance Clearance Survey.		8-Jun-92
Draft Report for Asbestos Investigation and Estimation of Fort Holabird Crime Records Center (CRC).		15-Sep-92
Asbestos Investigation and Estimation of Fort Holabird Crime Records Center.		29-Oct-92
Post Laundry Facility comprehensive Site Assessment	Versar	15-Jun-98
Post Laundry Facility comprehensive Site Assessment	Versar	5-Mar-97
Post Laundry Facility Additional Subsurface Investigation Activities MDE Case # c-0094-132		27-Sep-95
Post Laundry Facility Contaminant Assessment Report	Versar	6-Dec-91
DPDO Final Report, Phase One HTRW (SCAPS) Investigation	Baltimore District Corps of Engineers	Apr-97
DPDO Draft Final, Phase One HTRW (SCAPS) Investigation	Baltimore District Corps of Engineers	Dec-96
DPDO Environmental Sampling Covered Storage Facility	Baltimore District Corps of Engineers	Mar-97

PREVIOUS STUDIES

Title	AUTHOR	DATE
DPDO Metals Package	Baltimore District Corps of Engineers	18-Sep-95
DPDO Semi-volatile Package	Baltimore District Corps of Engineers	11-Sep-95
DPDO Sample Analysis Report – GP worker Order #9508083	Baltimore District Corps of Engineers	25-Aug-95
DPDO Sample Analysis Report - GP work Order #9509006	Baltimore District Corps of Engineers	13-Sep-95
DPDO Sample Analysis Report – GP work Order #9508056	Baltimore District Corps of Engineers	5-Oct-95
DPDO Sample Analysis Report – GP Work Order #9508022	Baltimore District Corps of Engineers	5-Oct-95
DPDO Sample Analysis Report – GP Work Order #9508018	Baltimore District Corps of Engineers	9-Oct-95
Sample Analysis Report – GP Work Order #9508037	Baltimore District Corps of Engineers	9-Oct-95
Draft, Active Sanitary Landfill Atrazine Study Fort Meade Feasibility Study and Remedial Investigation/Site Inspection	Arthur D. Little	Jun-97
Draft, Active Sanitary Landfill Off-Post Drilling and Sampling Results and Surface Water Sampling Results Fort Meade Feasibility Study and Remedial Investigations/Site Inspection	Arthur D. Little	Apr-97
1997 Active Sanitary Landfill Semi-Annual Detection & Assessment Monitoring Report	CH2MHill	Aug-97
1998 Active Sanitary Landfill Semi-Annual Detection & Assessment Monitoring Report	CH2MHill	Oct-98
1996 Active Sanitary Landfill Annual Detection & Assessment Monitoring Report	CH2MHill	Aug-96
1997 Active Sanitary Landfill Annual Detection & Assessment Monitoring Report	CH2MHill	Aug-97
Clean Fill Dump Preliminary Data (surface soils, sediment, groundwater) Provided to BRAC Clean-up Team (EPA R3 and State), January 16, 1997		Provided to RAB, February 12, 1997
Industrial Corridor Risk Assessment	Versar	16-Dec-98
RCRA Facility Assessment	CH2MHill	Sep-99
Community Relations Plan	US Army Corps of Engineers ICF Kaiser/General Physics	Jun-00
Public Health Assessment	Dept. of Health & Human Services, Agency for Toxic Substances and Disease Registry	10-Nov-99
RAB Meeting Minutes	US Army	9/96 to 2003
Partnering Meeting Summaries	US Army	1997 to 2003
Technical and Sampling/Analysis Plan	U.S. Army Toxic and Hazardous Material Agency EA Engineering	Feb-90
Preliminary Assessment Report Addendum	US Army Toxic and Hazardous Material Agency Roy F. Weston, Inc.	Mar-92

PREVIOUS STUDIES

Title	AUTHOR	DATE
Preliminary Assessment Report	US Army Toxic and Hazardous Material Agency Roy F. Weston, Inc.	Nov-90
Summary Report Pump Test for Site-Wide Groundwater Investigation	USACE/Dames & Moore	Mar-00
Generic Field Sampling Plan	USACE/EM Federal	Mar-03
Soil Background Concentration Report	USACE/Malcolm Pirnie	Oct-01
Generic Site Safety & Heath Plan	USACE/EM Federal	Jun-02
Generic Quality Assurance Plan	USACE EM Federal	Mar-03
Remedial Investigation Work Plan - Golf Course Maintenance Facility Buildings 8860, 8870, 8880, 8890 and 8890A SWMUs 131-137	Versar, Inc.	28-Oct-03
Solid Waste Management Unit Project Work Plans Data Gap Sites	Versar, Inc.	2-May-02
Solid Waste Management Unit Study	BCM Engineers	Jun-96
Sampling Visits Solid Waste Management Units Vol I	Versar, Inc.	16-Sep-99
Sampling Visits Solid Waste Management Units Vol II	Versar, Inc.	16-Sep-99
Sampling Visits Solid Waste Management Units Vol III	Versar, Inc.	Sep-99
Sampling Visits Solid Waste Management Units Vol IV	Versar, Inc.	Sep-99
Sampling Visits Solid Waste Management Units Vol V	Versar, Inc.	Sep-99
Sampling Visits Solid Waste Management Units Vol VI	Versar, Inc.	Sep-99
Sampling Visits (23 Additional Solid Waste Management Units) Vol I and II	Versar, Inc.	7-Jul-00
Site Investigation Report - Former Wash Pack and Oil Separator at Building 940 (SWMUs 12/13)	Versar, Inc.	14-Aug-01
Site Investigation Report - Building 1251 (SWMU 19)	Versar, Inc.	13-Jul-01
Site Investigation Report - Building 2120C (SWMU 25)	Versar, Inc.	30-Oct-01
Site Investigation Report - Building 2121 (SWMUs 29/30)	Versar, Inc.	26-Oct-01
Site Investigation Report - Building 2213 SWMU 38	Versar, Inc.	14-Aug-01
Site Investigation Report - Building 2220 SWMU 42	Versar, Inc.	14-Aug-01
Site Investigation Report - Building 2240 SWMUs 45/46	Versar, Inc.	14-Sep-01

PREVIOUS STUDIES

Title	AUTHOR	DATE
Site Investigation Report - Building 2253 (SWMUs 61/62)	Versar, Inc.	13-Jul-01
Site Investigation Report - Building 2276 (SWMUs 63/64)	Versar, Inc.	14-Sep-01
Site Investigation Report - Building 2286 (SWMUs 66/67)	Versar, Inc.	14-Sep-01
Site Investigation Report - Building 2482 (SWMU 72)	Versar, Inc.	13-Jul-01
Site Investigation Report - Building 2630 (Wash Rack) SWMU 78	Versar, Inc.	13-Jul-01
Site Investigation Report - Building 2724 (SWMUs 80 through 86)	Versar, Inc.	7-Dec-01
Site Investigation Report - Wash Racks at Building 2728 SWMUs 87, 88, 89, 90, 91, 92	Versar, Inc.	14-Dec-01
Site Investigation Report - Building 4587 SWMO 101/102	Versar, Inc.	7-Dec-01
Site Investigation Report - Building 4680, SWMU 103	Versar, Inc.	7-Dec-01
Site Investigation Report - Former Wash Rack at Building 8480 (SWMUs 110/111)	Versar, Inc.	14-Sep-01
Site Investigation Report - Building 8485, SWMU 115/116	Versar, Inc.	2-Nov-01
Site Investigation Report - Wash Rack Building 8485 SWMU 116A	Versar, Inc.	7-Nov-01
Site Investigation Report - Building 8486 SWMVs 117/118	Versar, Inc.	2-Nov-01
Site Investigation Report - Building 8549 SWMUs 121/124	Versar, Inc.	14-Sep-01
Site Investigation Report - Building 8688 SWMUs 129/130	Versar, Inc.	14-Aug-01
Site Investigation Report - Golf Course Maintenance Area Buildings 8860, 8880, 8890 and 8896 SWMVs 131-133 and 135-137	Versar, Inc.	18-Dec-01
Site Investigation Report - Wash Rack at 4th and Y Streets, SWMUs 143/144	Versar, Inc.	13-Jul-01
Site Investigation Report - Building 6513, SWMU 150	Versar, Inc.	14-Aug-01
Site Investigation Report - Building 2266	Versar, Inc.	6-Sep-02
Site Investigation Report - O'Brien Road	USACE URS	15-Mar-02
Comprehensive Site Assessment - Former Incinerator Building 21-1/2 Street	Versar, Inc.	8-Jun-99
Comprehensive Site Assessment - Former Battery Disposal Facility Morrison Street	Versar, Inc.	8-Jun-99
Sampling Visit - Building 8881	Versar, Inc.	13-Sep-99
Work Plan Initial Delineation Activities Impacted Solid Waste Management Units	Versar, Inc.	30-Mar-00

PREVIOUS STUDIES

Title	AUTHOR	DATE
Draft Initial Delineation Report Department of Logistics Tactical & Support Vehicle/Heavy Equipment Maintenance Facility	Versar, Inc.	31-Aug-00
Draft Initial Delineation Reports Department of Logisitcs, Storage Services and Supply Division Complex, Pepper Road	Versar, Inc.	12-Sep-00
Draft Initial Delineation Reports Department of Public Works Storage Yard, 2nd Street	Versar, Inc.	12-Sep-00
Draft Initial Delineation Reports Directorate of Office Management Complex, 20th Street	Versar, Inc.	12-Sep-00
Draft Initial Delineation Reports The Photo Lab (Bldg 546) and Former Vehicle Maintenance Shop (Bldg 2227)	Versar, Inc.	12-Sep-00
Draft Initial Delineation Reports Wash Rack Oil/Water Separator at Equipment Concentration Station 86 (Bldg 2120C), Heavy Equipment and Generator Maintenance Shop (Bldg 2128) and Forensic Toxicology Drug Testing Lab (Bldg 2490)	Versar, Inc.	12-Sep-00
Draft Initial Delineation Reports Equipment/Vehicle Storage Yard Wash Rack System (Bldg 1007), 20th Street, and Dept. of Public Works Storage and Receiving Yard (Bldg 2207), 1st Street	Versar, Inc.	12-Sep-00
Remedial Investigation Work Plan - Former Heavy Gun Cleaning and Repair Shop (FGGM92) Buildings 2246 and 2253	USACE Versar, Inc.	21-May-03
Remedial Investigation Work Plan - Former Motor Pool Maintenance Facility (FGGM86) Building 2286	USACE Versar, Inc.	02-May-03
Remedial Investigation Work Plan - Former Nike Missile Control Site (FGGM87) Buildings 1945, 1946, 1957, 1958, 1974, 1976, 1977, 1978 and 1990	USACE Versar, Inc.	13-Jun-03
Remedial Investigation Work Plan - Former Tank Maintenance Facility (FGGM88) Building 2207	USACE Versar, Inc.	21-Jul-03
Remedial Investigation Work Plan - Former Tank Maintenance Facility (FGGM89) Building 2217	USACE Versar, Inc.	25-Jul-03
Remedial Investigation Work Plan - Former Tank Cleaning Supply Warehouse (FGGM90) Buildings 2240 - 2243 and 2247 - 2249	USACE Versar, Inc.	04-Jun-00
Remedial Investigation Work Plan - Golf Course Maintenance Facility Buildings 8860, 8870, 8880, 8890 and 8890A SWMUS 131-137	USACE Versar, Inc.	28-Oct-03
Remedial Investigation Report and Appendices - Active Sanitary Landfill and Clean Fill Dump	U.S. Army Toxic and Hazardous Material Agency EA Engineering, Science and Technology, Inc.	Dec-92

PREVIOUS STUDIES

Title	AUTHOR	DATE
Work Plan Feasibility Study and Remedial Investigation/Site Inspection RI/SI Addendum - Inactive Landfill No. 2 DPDO Salvage Yard and Transformer Storage Helicopter Hangar Area Fire Training Area Ordnance Demolition Active Sanitary Landfill Clean Fill Dump	USAEC Arthur D. Little	19-Nov-93
Quality Control Plan Feasibility Study and Remedial Investigation/Site Inspection RI/SI Addendum	USAEC Arthur D. Little	19-Nov-93
Health and Safety Plan Feasibility Study and Remedial Investigation/Site Inspection Addendum - Inactive Landfill No. 2 DPDO Salvage Yard and Transformer Storage Helicopter Hangar Area Fire Training Area Ordnance Demolition Active Sanitary Landfill Clean Fill Dump	U.S. Army Environmental Center Arthur D. Little	19-Nov-93
Ordnance Survey Report 1400 Acre Parcel - 500-acre Dept. of Interior Parcel Tipton Army Airfield Parcel Active Sanitary Landfill Parcel	USAEC International Technology Corp.	Jun-94
Cell 2 Modifications - Active Sanitary Landfill		11-Aug-94
Initiation of Detection Monitoring Program - Active Sanitary Landfill	U.S. Army Center for Health Promotion and Preventive Medicine	Sep-94
Feasibility Study Report - Active Sanitary Landfill	USAEC Arthur D. Little	16-Sep-94
Residential Wells Data - Active Sanitary Landfill	USAEC Arthur D. Little	13-Oct-94
Remedial Investigation Addendum - Active Sanitary Landfill	USAEC Arthur D. Little	May-97
Comment-Response Package for Off-Post Drilling Report - Active Sanitary Landfill	USAEC Arthur D. Little	1-Mar-98
Atrazine Study Feasibility Study and Remedial Investigation Site Inspection - Active Sanitary Landfill	Arthur D. Little USAEC	Mar-99
Off-Post Drilling and Sampling Results and Surface Water Sampling Results Feasibility Study and Remedial Investigation/Site Inspection - Active Sanitary Landfill Clean Fill Dump	USAEC Arthur D. Little	Mar-99
Groundwater Database Report - Active Sanitary Landfill	USACE Malcolm Pirnie	Mar-99
Results from May 2001 Sampling of Monitoring Well MW-4DR - Active Sanitary Landfill	IT Corp/Advanced Infrastructure Management Technologies	Jul-01

PREVIOUS STUDIES

Title	AUTHOR	DATE
Groundwater Remedial Investigation Work Plan Addendum - Active Sanitary Landfill	IT Corp/Advanced Infrastructure Management Technologies	Nov-01
Post Laundry Facility - Safety & Health Program Site Specific Safety and Health Plan Subsurface Investigation	Versar, Inc.	02-Jun-95
Post Laundry Facility - Additional Subsurface Investigation Activities	Versar, Inc.	27-Sep-95
Post Laundry Facility - Additional Subsurface Investigation Activities	USACE	Apr-97
Post Laundry Facility - January 1999 Quarterly Groundwater Sampling Results	Versar, Inc.	1-Mar-99
Post Laundry Facility - May 1999 Quarterly Groundwater Sampling Results	Versar, Inc.	24-Jun-99
Post Laundry Facility - December 1999 Quarterly Groundwater Sampling Results	Versar, Inc.	20-Dec-99
Post Laundry Facility - Comprehensive Site Assessment Volume I of II	Versar, Inc.	20-Oct-00
Post Laundry Facility - Response to EPA Comments on Final Comprehensive Site Assessment	Versar, Inc.	10-Jan-02
Site Inspection Volumes I - III - Ordnance Demolition Area Clean Fill Dump Fire Training Area Inactive Landfill No. 1 Inactive Landfill No. 2 Inactive Landfill No. 3 DPDO Salvage Yard	US Army Toxic and Hazardous Material Agency EA Engineering	Oct-92
Health & Safety Plan - DRMO	USAEC Arthur D. Little	19-Nov-93
Work Plan Feasibility Study and Remedial Investigation/Site Inspection Addendum - Inactive Landfill No. 2 DPDO Salvage Yard and Transformer Storage Helicopter Hangar Area Fire Training Area Ordnance Demolition Active Sanitary Landfill Clean Fill Dump	USAEC Arthur D. Little	19-Nov-93
Quality Control Plan Feasibility Study and Remedial Investigation/Site Inspection RI/SI Addendum	USAEC Arthur D. Little	19-Nov-93
DRMO - Quality Control Plan Remedial Investigation and Feasibility Study of the Defense Property Disposal Office	USAEC Engineering Technologies Associates, Inc.	01-May-95
DRMO - Technical Work Plan Remedial Investigation/Feasibility Study	USAEC Engineering Technologies Associates, Inc.	May-95
DRMO - Semivolatile Package	GP Environmental Services, Inc.	11-Sep-95
Metals Package Metals Case Narrative	GP Environmental Services, Inc.	18-Sep-95

PREVIOUS STUDIES

Title	AUTHOR	DATE
Site Inspection Addendum Report - Defense Reutilization And Marketing Office Inactive Landfill No. 2 Helicopter Hangar Area Fire Training Area Ordnance Demolition Soldiers Lake	USAEC Arthur D. Little	Dec-95
DRMO - Phase One HTRW (SCAPS) Investigation	USACE	Apr-97
DRMO - Sampling Report Environmental Sampling Activities	USACE	Dec-96
DRMO - Environmental Sampling	USACE	Mar-97
DRMO - Response to Specific Comments-EPA		08-Aug-97
DRMO - Response to Specific Comments-MDE		12-Aug-97
DRMO - Work Plan Phase Two HTRW Investigation	USACE	Sep-97
DRMO - Summary Report Drilling & Testing Activities Phase II Groundwater Investigation	USACE Dames & Moore	09-Apr-98
DRMO - Final Quality Control Plan Remedial Investigation/Feasibility Study	USAEC Engineering Technologies Associates, Inc.	30 Dec-94 May-95
DRMO - Remedial Investigation and Baseline Risk Assessment	URS USACE	10-Jul-03
Architect of Capitol - Quality Control Summary/Analytical Results Vols I-V	USACE/Malcolm Pirnie	Mar-02
Architect of Capitol - Remedial Investigation Report Vols I-II	USACE/Malcolm Pirnie	Oct-01
Architect of Capitol - Work Plan Part II -Quality Assurance Project Plan Remedial Investigation	USACE/Malcolm Pirnie	Mar-00
Architect of Capitol - Work Plan Part I -Field Sampling Plan Remedial Investigation	USACE/Malcolm Pirnie	Nov-00
Architect of Capitol - Work Plan Part III -HASP Remedial Investigation	USACE/Malcolm Pirnie	Mar-00
Architect of Capitol - Initial Phase I Report Site Assessment of 100-Acre Parcel	Rummel, Klipper & Kahl	19-May-94
Former Trap And Skeet Range (20th Street) - Comprehensive Site Assessment	Versar, Inc.	10-Jun-99
Former Trap And Skeet Range (20th Street) - Corrective Action Plan	Versar, Inc.	17-Dec-02

**Fort Meade
and
Phoenix Military Reservation
ER, A ELIGIBLE
OPEN SITES**

FGGM 05 TROOP BOILER PLANT

SITE DESCRIPTION

The Troop Housing Boiler Plant (Bldg 8481) is located on Simonds Street and remained in operation until 2001. The existing tanks and facility were removed in FY04. There were 4 USTs that contained waste oil and fuel oil with a total capacity of 55,550 gallons, one remains. In 1991, a 20,000 gallon No. 2 fuel oil tank was abandoned in place. Monitoring wells were required by the state and contamination was found. The State issued a NOV in June 1992 for the site, calling for the installation of a recovery system. The system was in operation between 1994 and 1997. Operations were discontinued because the system design could not accommodate changes in groundwater levels. A Solar Powered Oil Removal Skimmer System was installed in August 2001. Product recovery will continue until MDE determines that no additional actions are required. The following tanks were removed as specified:

Tank A	275 gl	Removed Aug 91
Tank B	20,000 gl	Removed Aug 91
Tank C	15,000 gl	Removed Oct 2000
Tank D	15,000 gl	Removal May 98
Tank E	20,000 gl	Removed Oct 2000
Tank F	550 gl	Removed May 98

PROPOSED PLAN

Anticipate land re-use: Building 8481 (FGGM-05) razed in FY04. Comprehensive expansion master plan calls for the relocation of the military clothing store to this location (land re-use is commercial).

STATUS

RRSE RATING: High

CONTAMINANTS:

#2 Fuel Oil

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

PA/SI, RI/FS, RD, RA

CURRENT IRP PHASE:

RA(O)

FUTURE IRP PHASE:

PBC

FGGM 07 DRMO DRUM SITE

SITE DESCRIPTION

During the 1995 construction of a new building at the DRMO scrap yard, a large number of metal drums containing unknown substances were discovered. Excavation operations discovered approximately 190 drums, 4 transformers/electrical boxes, and 7 decontamination drums. A groundwater plume beneath the burial area extends several hundred feet south of the source onto Department of Interior property. Most recent investigations have delineated the plume. A Feasibility Study evaluating several remedial alternatives was published in 2004.

PROPOSED PLAN

Continue with current operations.

STATUS

RRSE RATING: High

CONTAMINANTS: Polychlorinated Biphenyls, VOCs

MEDIA OF CONCERN:
Groundwater

COMPLETED IRP PHASE:
PA/SI, IRA (2), RI

CURRENT IRP PHASE:
RI/FS

FUTURE IRP PHASE:
PBC

SITE DESCRIPTION

The former Building 6621 was located at the southwest corner of the York Avenue and Gordon Street intersection. The structure was historically used as the Installation’s pesticide shop. The structure was used regularly for the storage and mixing of pesticides from 1958 to 1978. In 1978, pesticide operations were transferred to Building 294. In 1996, the building was demolished and the site regraded. Pesticide contaminated soils were spread across the area. A site assessment was conducted in 1997. The site is contaminated with DDD and DDT at levels exceeding Industrial Risk Based Screening Criteria. A Remedial Investigation is planned for FY05. Excavation estimates used to derive removal estimates are based on best available data on hand, professional estimates of contaminated soil, and hazardous waste disposal costs.

PROPOSED PLAN

Complete RI/FS (FY05). Installation assumes excavation and disposal of contaminated soil as hazardous waste. Future development of land parcel is anticipated.

STATUS

RRSE RATING: High

CONTAMINANTS:
Pesticides

MEDIA OF CONCERN:
Soil

COMPLETED IRP PHASE:
PA/SI

CURRENT IRP PHASE:
RI/FS

FUTURE IRP PHASE:
RD/RA

FGGM 17

CLOSED SANITARY LANDFILL

SITE DESCRIPTION

The closed sanitary landfill (CSL) is made up of 130 acres and was constructed as an unlined facility in 1958. The trench fill method was used from 1958-1976 and the area fill method was used from 1976-1996 until the landfill was officially closed and capped.

A detection of carbon tetrachloride in an upgradient landfill monitoring well was discovered in the lower Patapsco Formation Aquifer. Detec-tions exceed MCLs for this constituent. To date, Ft. Meade has installed 24 wells in the lower Patapsco Formation in an attempt to identify a point source of carbon tetrachloride. A point source could not be indentified. The Army plans to include this data for the Closed Sanitary Landfill RI. Contaminants of concern associated with the contents of the Closed Sanitary Landfill will also be evaluated. Moni-toring of wells in the upper and lower aquifers continues per RCRA solid waste closure requirements.

STATUS

RRSE RATING: High

CONTAMINANTS:

VOCs, Metals, Pesticides

MEDIA OF CONCERN:

Groundwater, Soil

COMPLETED IRP PHASE:

PA/SI, IRA

CURRENT IRP PHASE:

RI/FS

FUTURE IRP PHASE:

RI/FS, LTM

PROPOSED PLAN

Concentrations of VOCs are present hydraulically upgradient of the CSL. Based on investigations conducted to date it is not likely a point source will be identified. The RI/FS will be completed. Land Use Controls are antici-pated.

FGGM 33

BATTERY SHOP BLDG 2283

SITE DESCRIPTION

Building 2283, constructed in 1941, was originally used as a motor repair shop or storage facility. The site was used for battery maintenance and repair operations from 1982 to 1990. From 1982-1985, battery acid was drained from a bermed area on the floor to soils behind the building. A neutralization tank containing limestone chips was installed behind the building in 1985 and for two years battery acid was discharged into the tank. Battery acid discharge ended in 1987; however, battery rinsing and cleaning operations continued with the discharge going into the ground. All battery operations ended in July 1990. Initial soil samples taken in 1990 and 1991 showed elevated lead levels, constituting a removal action in 1992. Site characterization began in March 1993 and interim remedial actions were completed by the end of 1993. A follow-up SI was completed in FY99/00 to aide in site closure.

PROPOSED PLAN

Closure documentation will be completed.

STATUS

RRSE RATING: High
CONTAMINANTS:
Lead
MEDIA OF CONCERN:
Soil, Groundwater
COMPLETED IRP PHASE:
PA/SI, IRA
CURRENT IRP PHASE:
RI/FS
FUTURE IRP PHASE:
RC

FGGM 47 POST LAUNDRY BLDG 2250

SITE DESCRIPTION

Building 2250 was constructed in the 1940s during World War II and remained a laundry/dry cleaning facility until the mid-1980s. After its closure, the existing facility was converted to a recycling center. Initial soils investigations indicated elevated levels of PCE (2,000 ppb) were present in soils; 45,000 ppb in groundwater; and 410 ppb in surface water. A soil gas survey was completed in 1990 to further define the extent of contamination. Due to the soil gas results, vadose zone soil sampling and groundwater sampling was scheduled. Groundwater monitoring wells were not installed because groundwater was not encountered above a clay layer found throughout the site. Based on this study, there appeared to be no significant impact to the substrate and the nearest shallow groundwater had not been affected. In 1994, MDE issued a corrective action order requiring Fort Meade to perform an investigation and to delineate the nature and extent of the problem. A comprehensive site investigation was completed to comply with the order.

PROPOSED PLAN

Conduct additional investigation and corrective action.

STATUS

RRSE RATING: High

CONTAMINANTS:

PCE

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI/FS

FUTURE IRP PHASE:

PBC

FGGM 74 ARCHITECT OF THE CAPITAL

SITE DESCRIPTION

This site is a 100 acre parcel of land bounded by Maryland Route 32 to the south, Rock Avenue to the north, Pepper Road to the east, and Remount Road to the west. Area includes warehouse facilities, USTs, and one motor pool. This property was deeded to the Architect of the Capital in October 1994, for the future construction of an archive facility for the Library of the Congress. The Army is responsible for investigating the environmental condition of the property and to restore the property as necessary in accordance with existing environmental laws and regulations. During FY00, a follow-on SI was conducted, showing low levels of SVOCs, metals and pesticide exceeding EPA Region III risk screening criteria.

PROPOSED PLAN

An RI/FS investigation is underway at this site. The Army assumes that Long Term Monitoring will be required in the outyears.

STATUS

RRSE RATING: High

CONTAMINANTS:

POL, SVOCs, METALS, PESTICIDE

MEDIA OF CONCERN:

Groundwater, Soil

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI/FS

FUTURE IRP PHASE:

LTM

FGGM 78 GRANITE NIKE

SITE DESCRIPTION

This is a former Nike-Hercules Missile Control site located in Granite, MD. Fort Meade is responsible for performing the necessary environmental investigations prior to excess.

PROPOSED PLAN

Submit request to MDE for site closure.

STATUS

RRSE RATING: High

CONTAMINANTS:

Metals

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

PA/SI, IRA

CURRENT IRP PHASE:

RC

FUTURE IRP PHASE:

RC

FGGM 83 TRAP AND SKEET RANGE

SITE DESCRIPTION

This site (~66 acres) was discovered during an Environmental Baseline Survey. In September 1998, a contract was awarded to investigate the site. Since that time, two separate SIs have been conducted. Both studies revealed the presence of lead and PAHs above the risk-based concentration levels. An Engineering Evaluation and Cost Analysis (EECA) to evaluate the feasibility of a removal action will be completed FY04.

PROPOSED PLAN

Continue investigation and remediation.

STATUS

RRSE RATING: High

CONTAMINANTS:

PAHs, Metals

MEDIA OF CONCERN:

Soil, Sediment, Surface Water

COMPLETED IRP PHASE:

PA/SI, IRA

CURRENT IRP PHASE:

NONE

FUTURE IRP PHASE:

PBC

FGGM 86 FORMER MOTORPOOL MAINTENANCE FACILITY

SITE DESCRIPTION

BLDG 2286 - This site was identified in a 1994 solid waste management unit study and further evaluated in two separate SIs during FY99 and FY00 respectively. Historical review of records has indicated that this site was constructed as a motor pool maintenance facility and therefore is being investigated under these criteria. Remedial investigation fieldwork for Bldg 2286 commenced in FY04. Preliminary data suggests that a groundwater plume extends to and around Bldg 2276. The size of the plume is roughly double what was anticipated. VOCs are present in the groundwater plume in the ppm range. Metals and TPH in soil have been identified in SI level investigations.

STATUS

RRSE RATING: Low

CONTAMINANTS:

VOCs, Heavy Metals, TPH

MEDIA OF CONCERN:

Groundwater

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI/FS

FUTURE IRP PHASE:

PBC

PROPOSED PLAN

Additional RI work is required to delineate the nature and extent of the problem. It is anticipated that action at the site will be required for groundwater. Anticipated actions may include in-situ groundwater remediation (chemical or microbial in-situ destruction).

FGGM 87 FORMER NIKE CONTROL SITE

SITE DESCRIPTION

The Former NIKE Fire Control Site was constructed in 1955, and supported NIKE missile activities until 1972. The four building complex is presently used as the Directorate of Information Management for Fort Meade. This site was identified in a 1994 solid waste management unit study and further evaluated in two separate SIs during FY99 and FY00 respectively. Investigations identified exceedences of SVOCs, arsenic and TPH in soils, and VOCs, SVOCs, metals, and TPH in groundwater. Further action under CERCLA is required. A remedial investigation is fully funded (FY04) and is expected to be completed by the first quarter of FY05.

STATUS

RRSE RATING: Medium

CONTAMINANTS:

SVOCs, VOCs, Metals, TPH

MEDIA OF CONCERN:

Groundwater, Soil

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI/FS

FUTURE IRP PHASE:

RI/FS, RD, RA(C), RA(O)

PROPOSED PLAN

A Feasibility Study will be completed in FY06. The Remedial Design and Remedial Action construction to be completed in FY07, to include expected hot spot removal and in-situ microbial or chemical destruction.

FGGM 88 FORMER TANK MAINTENANCE FACILITY SHOP-1

SITE DESCRIPTION

This site was identified in a 1994 solid waste management unit study and further evaluated in two separate SIs during FY99 and FY00 respectively. Originally constructed to support tank maintenance activities, this facility now acts as a warehouse. This site will be reviewed by the Tier I Partnering Team regarding future action. The Department of Public Works (DPW) Storage and Receiving Yard is located approximately 150 feet southwest of the intersection of 1st Street and Chisholm Avenue. Current land use at the site is for maintenance. Future land use is administration.

The site includes Building 2207 (SWMU 37, DPW Storage and Receiving Warehouse), Building 2201 (DPW Storage and Supply Warehouse), Building 2206 (offices), Building 2204 (storage building), and Building 2200 (metal canopy for outdoor storage). Constructed in 1918, Building 2207 was used as a tank maintenance facility prior to 1973. Since at least the mid-1980s, it has been in use by the DPW as a receiving and storage facility. It is currently used for receiving materials for distribution to other facilities (main floor), and storing supplies such as filters, light bulbs, and pipe clamps (upper floor). The grounds are also used for storage of construction materials, refrigerators, non-PCB-containing transformers, and fluorescent light bulbs. Records indicate that a spill had occurred from a transformer in the yard; however, the material was tested and found not to contain PCBs.

Investigations conducted at the site to date identified exceedances of screening criteria for the following compounds in soil: arsenic, TPH- diesel; and groundwater: arsenic, and TPH.

PROPOSED PLAN

Out-years may require continued investigation and remediation.

STATUS

RRSE RATING: High

CONTAMINANTS:

Metals, TPH

MEDIA OF CONCERN:

Soil, Groundwater

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI/FS

FUTURE IRP PHASE:

PBC

FGGM 89 FORMER TANK MAINTENANCE FACILITY SHOP-2

SITE DESCRIPTION

The Department of Logistics (DOL) Electric Shop Building 2217, SWMU 39 and the Department of Public Works (DPW) Storage Yard are located on 2nd Street between Pepper Road and Chisholm Avenue. Current and future land uses at the site is maintenance.

Building 2217 is located in the southeast corner of the site. A former wash rack (SWMU 41) and a former oil/water separator (SWMU 40) were located in the northwest corner of the site. The asphalt and gravel yard is currently used for storage of electrical transformers (non-PCB), electrical cables, boilers, water heaters, dishwashers, motors, and other equipment and machinery.

Constructed in 1918, Building 2217 was used as a tank maintenance facility until 1973. The building is currently used for storage of military vehicles, equipment, and small motors. The associated wash rack was used to wash vehicles and construction equipment; waste wash water was discharged to the oil/water separator and then to the sanitary sewer system. The wash rack and oil/water separator were demolished and removed in 1999 or 2000.

Investigations conducted at the site to date identified exceedances of screening criteria for the following compounds: in soil: arsenic, TPH- diesel; and groundwater: arsenic, beryllium, copper, lead thallium, VOCs (benzene; naphthalene; n-propylbenzene; chlorobenzene; 1,4-dichlorobenzene; 1,2,4-trimethylbenzene; 1,3,5-trimethylbenzene), TPH-gasoline and TPH –diesel.

PROPOSED PLAN

Out-years may require continued investigation and remediation.

STATUS

RRSE RATING: Low

CONTAMINANTS:

Metals, TPH

MEDIA OF CONCERN:

Groundwater, Soil

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI/FS

FUTURE IRP PHASE:

PBC

FGGM 90 FORMER TANK CLEANING SUPPLY WAREHOUSE

SITE DESCRIPTION

The Department of Logistics (DOL) Storage Services and Supply Division Complex is located in the northwest quadrant of the intersection of Pepper Road and Rock Avenue. Current and anticipated future land use is for maintenance operations.

The complex includes Buildings 2240(SWMUs 45, 46), 2241 (SWMUs 47, 48), 2242 (SWMUs 49, 50), 2243, 2247, 2248 (SWMUs 51, 52), and 2249 (SWMUs 53, 54). Building 2240 (DOL Laundry and Dry Cleaning Services) is a separate single-story brick structure. Buildings 2241, 2242, and 2243 are connected in sequence and are elevated on wooden piers. Buildings 2247, 2248, and 2249 are smaller, wooden garage-type structures located behind the larger buildings. Other features on the site include a propane storage pen (Building 2247A), a flammable gas storage pen (Building 2248A), an empty compressed gas storage pen north of Building 2249, and a former 1,000-gallon AST storing No. 2 fuel oil located behind Building 2242, removed in 1995.

Constructed in 1934, Building 2240 has been used as a storage and supply facility since construction in 1934, and currently is a receiving/transfer location for computer equipment and laundry/dry cleaning. Buildings 2241 and 2242 were constructed in 1918 and have always been used for receiving and short-term storage of supplies and materials before shipping. The receiving areas stored a variety of lube oil cleaners, degreasers, carbon removers, detergent cleaners, and waxes; vehicle batteries and electronic components have also been stored recently. Building 2247, constructed in 1941, currently stores surplus office furniture but formerly stored hazardous materials. Buildings 2248 and 2249, also constructed in 1941, were formerly used as standard ordnance shops and as storehouses. Both are currently used for furniture storage. A railroad line once crossed the site, but is not currently apparent.

Investigations conducted at the site identified the following exceedances of screening criteria:

Building 2240

- Soil
- Building 2240: Arsenic exceeded its RBCs and background mean in the only sample tested.
- Buildings 2241, 2242, 2248, 2249: Arsenic exceeded its RBCs and background mean in at least one of 23 locations tested. However, detection limits exceeded both RBC-residential and RBC-industrial.
- Groundwater
- VOCs (methylene chloride, PCE) exceeded their RBCs and the MCL for PCE in three wells west of the building.
- SVOCs (bis(2-ethylhexyl)phthalate; benzo(a)anthracene; benzo(b)fluoranthene; benzo(k)fluoranthene; benzo(a)pyrene; indeno(1,2,3)pyrene) exceeded their RBCs, primarily in one well east of the building, but detection limits for other locations were above RBCs and MCLs. Benzo(a)pyrene also exceeded its MCL.
- Dissolved metals: Arsenic exceeded its RBC but not its MCL in one well. Total metals: arsenic, cadmium, copper, lead, mercury, and thallium exceeded their MCLs in well SB7; chromium, lead, and mercury exceeded their MCLs in well SB11.
- TPH-diesel exceeded its draft MDE screening criterion in three wells (but the detection limit was above the screening criterion).
- Two herbicides (MCPP and MCPA) exceeded their RBCs in well SB7 (but detection limits at other locations were above RBCs).
- One pesticide (heptachlor epoxide) exceeded its RBC and its MCL in one well (but the detection limit at other locations was above the RBC).

STATUS

RRSE RATING: Medium

CONTAMINANTS:

PAHs, TPH, Inorganics

MEDIA OF CONCERN:

Groundwater, Soil

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI/FS

FUTURE IRP PHASE:

PBC

FORMER TANK CLEANING SUPPLY WAREHOUSE

FGGM 90 (PAGE 2)

SITE DESCRIPTION

Buildings 2241, 2242, 2248, 2249

- Soil: Arsenic exceeded RBCs and background mean in at least one of 23 locations tested. However, detection limits exceeded both RBC-residential and RBC-industrial.
- Groundwater
- Three VOCs (PCE, TCE, and vinyl chloride) exceeded their RBCs and MCLs at up to 12 locations. PCE and TCE detection limits were above RBCs, and the vinyl chloride detection limit was above both its RBC and its MCL.
- One SVOC (bis(2-ethylhexyl)phthalate) exceeded its RBC in at least one well, but the detection limit at other locations was above the RBC.
- Metals
- Dissolved: Arsenic exceeded its RBC but not its MCL in at least two of five locations tested, but detection limits were above the RBC.
- Total: At 19 of 20 locations, up to five total metals (arsenic, cadmium, copper, nickel, and thallium) exceeded their RBCs. At 17 of 20 locations, up to five total metals (arsenic, cadmium, copper, lead, and thallium) exceeded their MCLs.
- TPH-diesel exceeded its draft MDE screening criterion in at least three of 20 locations, but the detection limit was above the draft screening criterion.

PROPOSED PLAN

Out-years may require continued investigation and remediation.

FGGM 91

FORMER MISSILE REPAIR SHOP

SITE DESCRIPTION

Building 2220, located approximately 150 feet north of the intersection of 2nd Street and Pepper Road, is used as an electronic maintenance and equipment calibration shop. It was also used in the past as a missile repair shop in the 1960s, and as a warehouse and as a troop-training center. Current and future land uses at the site are designated as “maintenance.”

No hazardous chemicals are currently in use at the facility. Past activities in the building have used solvents and produced solvent waste. Small amounts of cleaning solvent and gasoline were formerly stored in a shed outside the building. Two fuel oil USTs were formerly located at the south side of the building; one was removed in 1992, and the other was removed and replaced in 1988 then removed in 1997. During the 1988 UST removal, corrosion holes were noted at the end of the tank. EMO records include a report of a 1-gallon spill of fuel oil in 1993 at the site.

PROPOSED PLAN

Out-years may require continued investigation and remediation.

STATUS

RRSE RATING: Medium

CONTAMINANTS:

SVOCs, VOCs, Inorganics, Petroleum Hydrocarbons

MEDIA OF CONCERN:

Groundwater, Soil

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI/FS

FUTURE IRP PHASE:

PBC

FGGM 92

FORMER HEAVY GUN CLEANING/REPAIR

SITE DESCRIPTION

The Department of Logistics Tactical & Support Vehicle/Heavy Equipment Maintenance Facility, Building 2246 (SWMUs 55-58), is located at the southwest corner of the intersection of Pepper Road and Huber Road. Building 2253 (SWMUs 61-62) is located approximately 400 feet northeast of the intersection of Rock Avenue and Huber Road. Current and future land uses at the site, according to the Fort George G. Meade Land Use Plan designate the area for "maintenance."

The maintenance facility includes two main structures, Buildings 2246 (SWMUs 55-56), which includes a wing containing vehicle service bays, and 2246D, and two smaller structures, Buildings 2244 and 2245. A wash rack (SWMU 58) and associated oil/water separator (SWMU 57) are present at the southwest side of Building 2246D. Other features at the site include a relatively new 800-gallon above-ground used oil storage tank at the eastern corner of Building 2246D, an out-of-service wash rack on the north side of the Building 2246 vehicle maintenance wing, and an out-of-service fuel pump on the north side of the vehicle maintenance wing. The fuel pump formerly dispensed fuel from an underground diesel fuel storage tank, which was removed in the 1990s.

Building 2246 has been used as a warehouse and vehicle and equipment maintenance facility since 1934; it was also used as a heavy gun repair shop from 1934 until the mid-1980s, and a portion of the building is also believed to have been used as a tank repair shop in the past. The facility currently provides all levels of maintenance and repair of heavy equipment and base vehicles.

Building 2253 was constructed in 1934, and has been used for vehicle maintenance in the past. Since 1992, the Director of Community Activities has used the facility for storage and maintenance of grounds keeping equipment and supplies (e.g., tractors, gas cylinders); prior to 1992 it was used by the Department of Logistics (DOL) as a warehouse. It was transferred back to the DOL in 2001. Contents of the building include small quantities of petroleum products. The north end of the building interior is currently unoccupied and secured because of the presence of lead paint and asbestos-containing materials.

An outdoor storage locker stores accumulated hazardous wastes, which are transferred to Building 2250 when the locker is full. An 800-gallon AST in the parking lot on the west side of the building serves as a collection point for used oil from vehicle maintenance. A gas cylinder storage cage is located adjacent to the hazardous waste storage locker.

Investigations conducted at the Building 2246 site identified the following exceedances of screening criteria:

- Soil
- Arsenic exceeded RBC-residential in at least 11 of 37 locations tested. Detection limits exceeded RBC-residential, and 5/00 detection limits also exceeded RBC-industrial.
- TPH-diesel exceeded MDE cleanup standard in three of 23 samples tested
- Groundwater
- Four VOCs (benzene, TCE, PCE, and vinyl chloride) exceeded their RBCs at one or two locations. TCE, PCE, and vinyl chloride also exceeded MCLs.
- One SVOC (bis(2-ethylhexyl)phthalate) exceeded its RBC at four locations.
- TPH-diesel exceeded its draft MDE screening criterion at four locations, and TPH-gasoline exceeded at one location.
- No dissolved metals exceeded their RBCs or MCLs in the five samples tested. Seven total metals (arsenic, beryllium, cadmium, copper, nickel, lead, thallium) exceeded their RBCs and MCLs in up to 17 locations.

STATUS

RRSE RATING: High

CONTAMINANTS:

SVOCs, VOCs, Heavy Metals TPH

MEDIA OF CONCERN:

Groundwater, Soil

COMPLETED IRP PHASE:

PA/SI

CURRENT IRP PHASE:

RI/FS (funded)

FUTURE IRP PHASE:

PBC

FGGM 92 FORMER HEAVY GUN CLEANING/REPAIR (PAGE 2)

At Building 2253, investigations conducted at the site identified the following exceedances of screening criteria:

- Soil
 - Arsenic exceeded its RBC-residential at all eight location tested; it exceeded the RBC-industrial at five locations and the background mean at seven locations.
 - TPH-diesel at one location exceeded the MDE cleanup standard for UST sites.
 - The herbicide MCPP at one location exceeded its RBC-residential but not its RBC-industrial.
- Groundwater
 - Arsenic exceeded its RBC but not its MCL at one of three locations tested.
 - TPH-diesel at three locations exceeded the draft MDE screening criterion.
 - The SVOC bis(2-ethylhexyl)phthalate and the herbicide MCPA each exceeded their RBCs. at one location.

PROPOSED PLAN

Out-years may require continued investigation and remediation.

FGGM 93

MANOR VIEW DUMP SITE

SITE DESCRIPTION

The Manor View Dump Site is located behind Manor View Elementary School, adjacent to Picerne Military Housing Neighborhood No. 1. The area was discovered during the excavation and grading to facilitate construction of the new housing. Historical maps indicate a former incinerator existed at this location. A PA/SI was conducted Spring of FY03. This investigation was limited to surface and subsurface soil in and around the dump area. Contaminants found in the soil exceeding screening criteria included inorganics, TPH and PAHs. A remedial investigation is underway to investigate all potentially impacted media.

PROPOSED PLAN

Complete RI/FS.

STATUS

RRSE RATING: High
CONTAMINANTS:
TPH, PAHs, Inorganics
MEDIA OF CONCERN:
Groundwater, Soil
COMPLETED IRP PHASE:
PA/SI
CURRENT IRP PHASE:
RI/FS
FUTURE IRP PHASE:
RI/FS, LTM

PMR-001 PHOENIX NIKE (FORMER SEPTIC SYSTEM)

SITE DESCRIPTION

This site is an old Nike-Hercules missile facility located in Phoenix, MD. The site was characterized and found to have contaminated groundwater with TCE. The drinking water supply for the local residents consisted of wells which were contaminated. Bottled water was provided as an interim measure pending the construction of a community deep well system for residents. Funding for the county to maintain the community well system for ten years was calculated and drawn up as a legal agreement between DA and Baltimore County. FY95 DERA funds covered the cost of the agreement. Subsequently, a remedial investigation was started at the site to evaluate the nature and extent of contamination beyond facility property and within the facility boundary.

PROPOSED PLAN

Complete RI. A Feasibility Study will be completed to evaluate possible remedial alternatives for groundwater.

STATUS

RRSE RATING: High

CONTAMINANTS:

TPH, VOCs

MEDIA OF CONCERN:

Groundwater, Soil

COMPLETED IRP PHASE:

PA/SI, IRA

CURRENT IRP PHASE:

RI/FS

FUTURE IRP PHASE:

RI/FS, RD, RA(C), RA(O)

PAST MILESTONES

None provided by the installation.

PROJECTED MILESTONES

Projected completion date of all RA: 2008
 Projected completion date of IRP: 2015+

NO FURTHER ACTION SITES

<u>AEDB-R#</u>	<u>Title</u>	<u>RC Date</u>
FGGM 03	Water Treatment Plant Bldg 8688	1994
FGGM 08	Comp Ammo Supply Point #1	1999
FGGM 11	Chemical Weapons	1997
FGGM 14	Hazardous Waste Storage Facility	1994
FGGM 18	ASP#2	1996
FGGM 19	Adv. Wastewater Treatment Facility	1994
FGGM 36	Photo Labs Bldg 4553, 6530	1996
FGGM 37	Kimbrough Army Hospital	1996
FGGM 45	Calibration Lab Building 2220	1996
FGGM 49	DOL Building 2246	1996
FGGM 51	Building 2216	1996
FGGM 70	Bldg 6513 Indoor Range	1996
FGGM 71	Bldg 6512 Ex Indoor Range	1996
FGGM 75	USTs Prior to 1984	1996
FGGM 78	Granite Nike	2001
PMR-002	Underground Storage Tank (Removed)	1993
PMR-003	Vehicle Maintenance Shop (Removed)	1987
PMR-004	Generator Building (Removed)	1987

Fort George G. Meade IRP Schedule

(Based on current funding constraints)

CURRENT FUNDING

FUTURE FUNDING

AEDB-R #	PHASE	FY05	FY06	FY07	FY08	FY09	FY10+
FGGM 13	RI/FS						
	RD						
	RAC						
FGGM 17	RI/FS						
	LTM						
FGGM 74	RI/FS						
	LTM						
FGGM 86	RI/FS						
	RD						
	RAC						
	RAO						
FGGM 87	RI/FS						
	RD						
	RAC						
	RAO						
FGGM 93	RI/FS						
	LTM						

Phoenix Military Reservation IRP Schedule

(Based on current funding constraints)

PMR-001	RI/FS						
	RD						
	RAC						
	RAO						

Remediation Activities

Past REM/IRA/RA

FGGM 05, Troop Boiler (EPR# FTM092S011). VENC, install pump & treat system and monitoring wells: FY92, FY93, FY94, FY95, FY92-96, FY97, FY98 LTM.

FGGM 07, DRMO Drum Site (EPR# FTM095S016). VENC, drum and transformer removal: FY95, FY96, FY97, FY98.

FGGM 17, Landfill Cell 1. (1) EPR# FTM089S031. VENC, FY91, FY92, FY93, FY94. DERA, site prep, cap components, gas vent system, groundwater monitoring, sediment control: FY94. DERA, FY95, cover material and fill & design changes, FY96, FY97, FY98.

FGGM 33, Battery Shop (EPR# FTM092F009). VENC, remove contaminated soil and tank: FY92.

FGGM 75, USTs Prior to 1984 (EPR# FTM089S017). Remove 309 USTs and contaminated soil: VENC, FY91, FY92, FY93, FY94; and AFH FY95.

PMR-001, Phoenix Nike (EPR# PX0090F800). DERA, install well system and conduct monitoring: FY94, FY98.

FGGM 05, Troop Boiler (EPR# FTM092S011). DERA, operation of pump & treat system and monitoring wells: FY98, FY99.

FGGM 07, DRMO Drum Site (EPR# FTM095S016). DERA, hazardous waste characterization, contaminated soil disposal: FY98, FY99.

FGGM 17, Landfill Cell #2 Cap (EPR# FTM089S031). DERA, initiate design and begin cap: FY98 - FY99.

FGGM 33, Battery Shop (EPR# FTM092F009). DERA, Remedial Investigation: FY98 - FY99.

FGGM 47, Post Laundry Facility (EPR# FTM091S005). Remedial Investigation: FY98 - FY99.

FGGM 74, Architect of the Capital (EPR# FTM094F001). DERA, Remedial Investigation. FY98-99.

PMR-001, Phoenix Nike, (EPR# FTM3940800). DERA, LTM: FY98 - FY99.

FGGM 78, Granite Nike Control Site (EPR# FTM095s011) site investigation FY98, FY99, FY01.

FGGM 83, Old Incinerator Site (EPR#FTM098S002) Site Investigation FY98.

FGGM 84, Former Trap and Skeet Range (EPR#FTM098S002) Site Investigation FY98 - FY99.

FGGM 85- Solid Waste Management Unit Study (EPR#093S006) FY99-00, PA/SI.

Current REM/IRA/RA

FGGM 05, Troop Boiler . RA anticipated with RIP/RC under PBC.

FGGM 07, DRMO Drum Site . FS (FY04) RA anticipated with RIP/RC under PBC.

FGGM 17, Landfill groundwater, methane gas monitoring and off-site groundwater contamination investigation. Carbon Tetrachloride investigation in upgradient landfill monitoring well.

FGGM 33, Battery Shop . IRA FY92, NFA documentation in FY04.

FGGM 47, Post Laundry Facility, FS and probable RA under PBC

FGGM 74, Architect of the Capital. DERA, Remedial Investigation and well monitoring.

Remediation Activities

PMR-001, Phoenix Nike. DERA, RI/FS, RD, RAC, RAO, LTM:

FGGM 83, Trap and Skeet Range, EE/CA investigation FY04, potential closure pending EPA review.

FGGM 86, Former Motor Pool Maintenance Facility, Continued SI with RI.

FGGM 87, Former Nike Control Site, Continued SI with possible RI.

FGGM 88, Former Tank Maintenance Shop-1, RI anticipated with RIP/RC under PBC.

FGGM 89, Former Tank Maintenance Shop-2, RI anticipated with RIP/RC under PBC.

FGGM 90, Former Tank Cleaning Supply Warehouse, RI anticipated with RIP/RC under PBC.

FGGM 91, Former Ordnance Shop, RI anticipated with RIP/RC under PBC.

FGGM 92, Former Heavy Gun Cleaning and Repair Shop, RI anticipated with RIP/RC under PBC.

Future REM/IRA/RA

RA at FGGM 07, 17, 47, 83, 86, 87, 88, 89, 90, and PMR-001

Community Involvement

RESTORATION ADVISORY BOARD (RAB) STATUS

Fort Meade has an active established Restoration Advisory Board and meets once each quarter. The board was established in 1995 and currently has 9 members.